

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
28 September 2000 (28.09.2000)

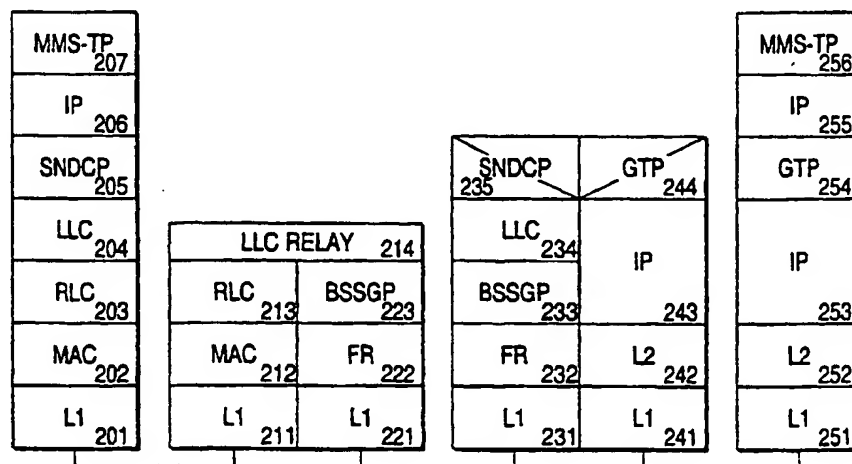
PCT

(10) International Publication Number
WO 00/57610 A3

- (51) International Patent Classification⁷: H04L 29/06, H04Q 7/22, 7/24, 7/32, H04L 12/28, 29/12
- (21) International Application Number: PCT/IB00/00430
- (22) International Filing Date: 22 March 2000 (22.03.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 990640 22 March 1999 (22.03.1999) FI
- (71) Applicant (for all designated States except US): NOKIA MOBILE PHONES LIMITED [FI/FI]; Keilalahdentie 4, FIN-02150 Espoo (FI).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): SEVANTO, Jarkko [FI/FI]; Santavuorenkatu 7 A 11, FIN-00400 Helsinki (FI). PUUSKARI, Mikko [FI/FI]; Angervotie 5 C 35, FIN-00320 Helsinki (FI).
- (74) Agents: HAWS, Helen et al.; Nokia Mobile Phones Limited, Nokia House, Nokia IPR Dept., Summit Avenue, Farnborough, Hampshire GU14 0NG (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:
— With international search report.

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR THE TRANSMISSION OF INFORMATION



(57) Abstract: A method is provided for transmitting multimedia-related information between a first device and a second device coupled to a packet-switched data transmission network. A first protocol stack (201, 202, 203, 204, 205, 206, 207) is defined for the first device and a second protocol stack (251, 252, 253, 254, 255, 256) is defined for the second device. The protocol stacks consist of layers and serve the arranging of the mutual exchange of information between the first device and the second device. An Internet Protocol layer (206, 255) is defined for the transmission of packetized data as a certain layer in the first protocol stack and a certain layer in the second protocol stack. A multimedia messaging transport protocol layer (207, 256) is also defined as a certain layer above the Internet Protocol layer (206, 255) in the first and second protocol stacks. Multimedia-related information is exchanged between the multimedia messaging transport protocol layer (207) in the first device and the multimedia messaging transport protocol layer (256) in the second device through the use of the Internet Protocol layer (206, 255) as well as other lower layers in the first and second protocol stacks.



(88) Date of publication of the international search report:
1 February 2001

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No
PC1/IB 00/00430

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L29/06 H04Q7/22 H04Q7/24 H04Q7/32 H04L12/28
H04L29/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BRASCHE G ET AL: "CONCEPTS, SERVICES, AND PROTOCOLS OF THE NEW GSM PHASE 2+ GEBERAKL PACKET RADIO SERVICE" IEEE COMMUNICATIONS MAGAZINE, US, IEEE SERVICE CENTER. PISCATAWAY, N.J, vol. 35, no. 8, 1 August 1997 (1997-08-01), pages 94-104, XP000704443 ISSN: 0163-6804	1,8,10
Y	page 95, left-hand column, line 20 - line 38 page 96, left-hand column, line 29 - line 66	7
A	page 97, left-hand column, line 47 -page 98, right-hand column, line 40; figure 5 -/-	2,3,5,9, 11



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

8 September 2000

Date of mailing of the international search report

18/09/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Karavassilis, N

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/IB 00/00430

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98 32301 A (ERICSSON TELEFON AB L M) 23 July 1998 (1998-07-23) page 5, line 14 -page 6, line 14 page 11, line 1 -page 14, line 9 page 15, line 1 - line 18	7
A	JAU-SHIUNG HUANG ET AL: "MHTP - A MULTIMEDIA HIGH-SPEED TRANSPORT PROTOCOL" PROCEEDINGS OF THE GLOBAL TELECOMMUNICATIONS CONFERENCE (GLOBECOM),US,NEW YORK, IEEE, vol. -, 6 December 1992 (1992-12-06), pages 1364-1368, XP000390432 ISBN: 0-7803-0608-2 page 1364, paragraph 2 -page 1366, paragraph 3.2	4,6
A	WO 98 19438 A (ERICSSON TELEFON AB L M) 7 May 1998 (1998-05-07) page 4, line 10 -page 6, line 7 page 14, line 16 - line 30	1-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 00/00430

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9832301 A	23-07-1998	US 6061346 A	09-05-2000
		AU 5684698 A	07-08-1998
		CN 1250578 T	12-04-2000
		EP 0953265 A	03-11-1999
WO 9819438 A	07-05-1998	SE 510664 C	14-06-1999
		AU 4888897 A	22-05-1998
		BR 9712387 A	31-08-1999
		CN 1235727 A	17-11-1999
		EP 0928535 A	14-07-1999
		SE 9603948 A	30-04-1998